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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,917	01/20/2005	Thomas Bechtold	05579-00338-US	6177
23416	7590	03/26/2007	EXAMINER	
CONNOLLY BOVE LODGE & HUTZ, LLP			KHAN, AMINAS	
P O BOX 2207			ART UNIT	PAPER NUMBER
WILMINGTON, DE 19899			1751	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/521,917	BECHTOLD ET AL.
	Examiner	Art Unit
	Amina Khan	1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 18 January 2007.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-17 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-17 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to applicant's amendments filed on January 18, 2007.
2. Claims 1-17 are pending. Claims 3,4,8-11 and 15 are amended. Claims 16 and 17 are new.
3. All prior rejections are withdrawn in view of applicant's arguments.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 8 and 14 recite the limitation "cellulose blends, polyamide blends" in line 2 which is considered new matter. The added limitation in the claim lacks literal basis in the specification as originally filed, see *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983) *aff'd mem.* 738 F.2d 453 (Fed. Cir. 1984).

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1984). There is only basis in the specification for blends are for blends of cellulose-polyester and cellulose-polyamide. Appropriate correction of the claim language is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6,9-13,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtold et al. (WO 99/11716). Since the WO 99/11716 reference is not in English, the English equivalent, US 6,312,583, is being relied upon for citation purposes.

Bechtold et al. teach dyeing apparatus of figure 1, where the apparatus includes an electrolytic cell with a cation exchange membrane which separates the anolyte and catholyte and a catholyte reservoir in which the dyeing takes place (column 2, lines 30-50). Bechtold et al. further teach reducing dyes such as Sulfur Black 1 in alkaline solutions comprising NaOH as the anolyte and at temperatures of 40-50°C (column 2, lines 50-65; column 3, lines 1-10). Bechtold et al. further teach that these dyes have high affinity to fiber materials, especially cellulose (column 1, lines 10-20). Bechtold et al. further teach dye concentrations of 100 g/L (claim 1), 40-50% dispersion of sulfur

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black 1 at 200 ml/L (~ 80-100 g/L) and 40-50% dispersion of sulfur black 1 at 20 ml/L (~ 8-10 g/L).

Bechtold et al. do not teach dyeing fiber materials with these methods.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Bechtold et al. by dyeing fibers in the catholyte reservoir because Bechtold et al. clearly teach that the reservoir is where the dyeing procedure can take place and that the dyes can be used for the purpose of dyeing as they also have high affinity for fibers particularly cellulose (column 1, lines 15-20). One would further expect that the dye solution delivered to the reservoir would maintain the dye concentration and temperature properties it had in the electrolytic cell. One of ordinary skill in the art would expect the methods of Bechtold to encompass the instantly claimed limitations absent unexpected results.

One of ordinary would further have been motivated to optimize the temperatures to those instantly claimed to achieve the best dyed textiles since optimization of result effective variables only require routine skill in the art.

7. Claims 5-8 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bechtold et al. (WO 99/11716) as applied to the claims above, and further in view of Carlough (US 5,873,912). Since the WO 99/11716 reference is not in English, the English equivalent, US 6,312,583, is being relied upon for citation purposes.

Bechtold et al. are relied upon as set forth above.

Bechtold et al. do not teach dyeing fiber materials with these methods.

Carlough teaches dyeing cellulosic fibers blended with polyester or polyamides (column 2, lines 1-10) by applying Sulphur Black 1 (column 3, line 19) at temperatures of 35-130°C (column 4, lines 60-65) with dye concentrations of 0.5-10 g/L (column 5, lines 45-50) under inert atmosphere conditions (column 6, lines 15-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Bechtold et al. by dyeing cellulosic blends at the dye concentrations, temperatures and inert conditions as taught by Carlough because Carlough teaches these conditions provide improved sulphur dyeings of cellulosic mixed fiber materials (column 1, lines 45-61). One of ordinary skill in the art would have been motivated to combine the teachings of the references absent unexpected results.

### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*AK*

Amina Khan, PhD  
March 21, 2007

*Lorina M. Douyon*

**LORINA M. DOUYON**  
**PRIMARY EXAMINER**